

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-14. (canceled)

15. (currently amended) A method for detecting text in a mixed-content image comprising:
- processing said image to identify edge pixels associated with significant intensity changes;
  - processing said image to identify an intensity gradient direction for each of said edge pixels;
  - processing said image to identify one of a ridge or a valley pixel having coincident curvature wherein a maximum curvature of an intensity map, centered on a subject pixel occurs at the same location as a minimum curvature of said intensity map;
  - when said coincident curvature position exists, identifying said subject pixel as one of a ridge or a valley pixel;
  - measuring the proximity of said one of a ridge or a valley pixel to said edge pixel;
  - and
  - identifying said edge pixel as a text edge pixel when said proximity conforms to specified proximity criteria.

16-21. (canceled)

22. (previously presented) A method for detecting text in a mixed-content image, said method comprising:

identifying an edge associated with a high-contrast intensity change;

identifying an intensity gradient direction for said edge;

identifying a character stroke axis, wherein said axis is an element in the group consisting of a stroke valley or a stroke ridge;

wherein said identifying comprises an analysis of image components until the change in curvature of the intensity curve between two successive image components in a direction substantially parallel to the intensity gradient direction reaches a maximum absolute value at the same position that the change in curvature of the intensity curve in a direction substantially perpendicular to the intensity gradient direction is near zero;

wherein said curvature of the intensity curve is calculated by solving for the eigenvalues of a Hessian matrix;

measuring a distance, in the intensity gradient direction, between said axis and said edge; and

identifying said edge as a text edge when said distance is less than a threshold value.

23. (previously presented) A method for detecting text in a mixed-content image, said method comprising:

identifying an edge associated with a high-contrast intensity change;

identifying an intensity gradient direction for said change;

identifying a character stroke axis, wherein said axis is selected from the group consisting of a stroke valley and a stroke ridge, comprising the acts of: (1) analyzing successive pixels to identify a coincident curvature position wherein a substantial curvature of an intensity map occurs at the same location as a minimal curvature of said intensity map; and (2) measuring a substantially transverse distance between said axis and said edge; and

identifying said edge as a text edge when said substantially transverse distance is less than a threshold value.

24. (previously presented) A method for detecting text in a mixed-content image comprising:

processing said image to identify edge components associated with significant intensity changes;

processing said image to identify an intensity gradient direction for each of said edge components;

processing said image to identify character stroke axes, wherein said stroke axes are one of a stroke valley or a stroke ridge, comprising the step of analyzing successive pixels to identify a coincident curvature position wherein a maximum curvature of an intensity map, said maximum curvature being greater than a threshold value, occurs at the same location as a minimal curvature of said intensity map, said minimal curves being lower than a specified value;

measuring the proximity of said axes to said edge component; and

identifying said edge component as a text edge component when said proximity conforms to specified proximity criteria.

25. (previously presented) A computer readable medium for detecting text in a mixed-content image, said method comprising the acts of:

identifying an image edge component of an edge associated with a high-contrast intensity change in an image;

identifying an intensity gradient direction for said edge component;

identifying a geometric intensity curvature feature consisting of a ridge or a valley, where said identifying a geometric intensity curvature comprises an analysis of image components until the change in curvature of the intensity curve between two successive image components in a direction substantially parallel to the intensity gradient direction reaches a maximum absolute value at the same position that the change in curvature of the intensity curve in a direction substantially perpendicular to the intensity gradient direction is near zero;

measuring the proximity of said feature to said edge; and

identifying said edge component as a text edge component when said proximity conforms to specific proximity criteria.

26. (new) A method for detecting text in a mixed-content image, said method comprising:
- identifying an edge associated with a high-contrast intensity change;
  - identifying an intensity gradient direction for said edge;
  - identifying a character stroke axis, wherein said axis is selected from the group consisting of a stroke valley or a stroke ridge;
  - measuring a substantially transverse distance between said axis and said edge;
  - identifying said edge as a text edge when said substantially transverse distance is less than a threshold value; and
  - analyzing successive pixels to identify a coincident curvature position wherein a substantial curvature of an intensity map occurs at the same location as a minimal curvature of said intensity map in another direction.

27. (new) A method for detecting text in a mixed-content image comprising:
- processing said image to identify edge components associated with significant intensity changes;
  - processing said image to identify an intensity gradient direction for each of said edge components;
  - processing said image to identify character stroke axes, wherein said axes are one of a stroke valley or a stroke ridge;
  - measuring the proximity of said axes to said edge component;
  - identifying said edge component as a text edge component when said proximity conforms to specified proximity criteria; and
  - analyzing successive pixels to identify a coincident curvature position wherein a maximum curvature of an intensity map, said maximum curvature being greater than a threshold value, occurs at the same location as a minimal curvature of said intensity map, said minimal curvature being lower than a specified value and being in a direction approximately perpendicular to said maximum curvature.